CRF rors Corrected by	the STIC System of the STIC Syst	CRF Processi	ng Date:	12/3/01
lumber: 09 991,258 Changed a file from non-ASCII to ASCII	12/0	Edited by: Verified by:	DC_	(STIC s
Changed the margins in cases where the sequence	ce text was "wrapp	ed" down to the	next line.	
Edited a format error in the Current Application Da	ata section, specific	ENT	ERI	ED
Edited the Current Application Data section with the applicant was the prior application data; or	ne actual current nu	ımber. The num	nber inputte	
Added the mandatory heading and subheadings for	or *Current Applicat	ion Data*.		
Edited the "Number of Sequences" field. The app	licant spelled out a	number instead	of using a	n integer.
Changed the spelling of a mandatory field (the hea	adings or subheadir	ngs), specifically		
Corrected the SEQ ID NO when obviously incorrec	ct. The sequence r	numbers that we	re edited w	vere:
Inserted or corrected a nucleic number at the end	of a nucleic line. S	EQ ID NO's edi	led:	
Corrected subheading placement. All responses napplicant placed a response below the subheading	nust be on the sam , this was moved to	e line as each so its appropriate	ubheading. place.	If the
Inserted colons after headings/subheadings. Hea	dings edited include	ed:		·
Deleted extra, invalid, headings used by an applica	ant, specifically:			
Deleted: non-ASCII "garbage" at the beginning page numbers throughout text; other inva	g/end of files; alid text, such as	secretary initials	/filename a	at end of file
Inserted mandatory headings, specifically:				
Corrected an obvious erro: in the response, speci	fically:			
Edited identifiers where upper case is used but lov	ver case is required	d, or vice versa.		
Corrected an error in the Number of Sequences fie	eld, specifically:			
A "Hard Page Break" code was inserted by the ap	plicant. All occurre	nces had to be o	deleted.	
Deleted endIng stop codon in amino acid sequenc fue to a PatentIn bug). Sequences corrected:				ngly (error
Other: Aligned amino acid numb	entry with	spece bar.		

DATE: 12/07/2001 TIME: 09:20:13

OIPE

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4 <110> APPLICANT: Olmsted, Robert
              Keith, Paula
      5
      6
              Dryga, Sergey
      7
              Caley, Ian
      8
              Maughan, Maureen
      9
              Johnston, Robert
              Davis, Nancy
     10
              Swanstrom, Ronald
     13 <120> TITLE OF INVENTION: ALPHAVIRUS VECTORS AND VIROSOMES WITH MODIFIED HIV GENES FOR
USE AS
              VACCINES
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     16 <130> FILE REFERENCE: 01113.0001U3
C--> 18 <140> CURRENT APPLICATION NUMBER: US/09/991,258
C--> 18 <141> CURRENT FILING DATE: 2001-11-16
     18 <150> PRIOR APPLICATION NUMBER: 09/902,537
     19 <151> PRIOR FILING DATE: 2001-07-09
     21 <150> PRIOR APPLICATION NUMBER: 60/216,995
     22 <151> PRIOR FILING DATE: 2000-07-07
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PATENT APPLICATION: US/09/991,258

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DATE: 12/07/2001

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                                                                       12120
239 acaagtotgg aaagaaatgo ataagotttt gocattotca coggattoag togtoactoa
240 tggtgatttc tcacttgata accttatttt tgacgagggg aaattaatag gttgtattga
                                                                       12180
241 tgttggacga gtcggaatcg cagaccgata ccaggatctt gccatcctat ggaactgcct
                                                                       12240
                                                                       12300
242 cggtgagttt tctccttcat tacagaaacg gctttttcaa aaatatggta ttgataatcc
243 tgatatgaat aaattgcagt ttcatttgat gctcgatgag tttttctaag aattctcatg
                                                                       12360
244 tttgacagct tatcatcgat aagctttaat gcggtagttt atcacagtta aattgctaac
                                                                       12420
245 gcagtcaggc accgtgtatg aaatctaaca atgcgctcat cgtcatcctc ggcaccgtca
                                                                       12480
                                                                       12523
246 ccctggatgc tgtctagagg atccctaata cgactcacta tag
250 <210> SEQ ID NO: 2
251 <211> LENGTH: 7479
252 <212> TYPE: DNA
253 <213> ORGANISM: Artificial Sequence
255 <220> FEATURE:
256 <223> OTHER INFORMATION: Description of Artificial Sequence; Note =
257
         synthetic construct
```

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/991,258

DATE: 12/07/2001 TIME: 09:20:14

Input Set : A:\PTO.DC.TXT

Output Set: N:\CRF3\12072001\1991258.raw

L:18 M:270 C: Current Application Number differs, Replaced Current Application No L:18 M:271 C: Current Filing Date differs, Replaced Current Filing Date

OIPE

```
RAW SEQUENCE LISTING
                                                              DATE: 12/03/2001
                                                              TIME: 13:50:37
                     PATENT APPLICATION: US/09/991,258
                                                                  Does Not Comply
                     Input Set : A:\W118611.txt
                                                                  Corrected Diskette Needed
Evroyon p. 4
                     Output Set: N:\CRF3\11212001\I991258.raw
      4 <110> APPLICANT: Olmsted, Robert
              Keith, Paula
      5
              Dryga, Sergey
      6
      7
              Caley, Ian
      8
              Maughan, Maureen
      9
              Johnston, Robert
              Davis, Nancy
     10
              Swanstrom, Ronald
     13 <120> TITLE OF INVENTION: ALPHAVIRUS VECTORS AND VIROSOMES WITH MODIFIED HIV GENES FOR
USE AS
     14
              VACCINES
     16 <130> FILE REFERENCE: 01113.0001U3
C--> 18 <140> CURRENT APPLICATION NUMBER: US/09/991,258
C--> 18 <141> CURRENT FILING DATE: 2001-11-16
     18 <150> PRIOR APPLICATION NUMBER: 09/902,537
     19 <151> PRIOR FILING DATE: 2001-07-09
     21 <150> PRIOR APPLICATION NUMBER: 60/216,995
     22 <151> PRIOR FILING DATE: 2000-07-07
     24 <160> NUMBER OF SEQ ID NOS: 19
     26 <170> SOFTWARE: FastSEQ for Windows Version 4.0
ERRORED SEQUENCES
     2238 <210> SEQ ID NO: 13
     2239 <211> LENGTH: 981
     2240 <212> TYPE: PRT
     2241 <213> ORGANISM: Artificial Sequence-
     2243 <220> FEATURE:
     2244 <223> OTHER INFORMATION: Description of Artificial Sequence; Note =
     2245
                synthetic construct
     2247 <400> SEQUENCE: 13
     2248 Met Ser Leu Val Thr Thr Met Cys Leu Leu Ala Asn Val Thr Phe Pro
     2250 Cys Ala Gln Pro Pro Ile Cys Tyr Asp Arg Lys Pro Ala Glu Thr Leu
     2251
                      20
                                           25
     2252 Ala Met Leu Ser Val Asn Val Asp Asn Pro Gly Tyr Asp Glu Leu Leu
```

75

90

105

40 2255 Glu Ala Ala Val Lys Cys Pro Gly Arg Lys Arg Arg Ser Thr Glu Glu

2257 Leu Phe Lys Glu Tyr Lys Leu Thr Arg Pro Tyr Met Ala Arg Cys Ile

2259 Arg Cys Ala Val Gly Ser Cys His Ser Pro Ile Ala Ile Glu Ala Val

2261 Lys Ser Asp Gly His Asp Gly Tyr Val Arg Leu Gln Thr Ser Ser Gln

2263 Tyr Gly Leu Asp Ser Ser Gly Asn Leu Lys Gly Arg Thr Met Arg Tyr 120

55

70

2258 65

2260

35

100

DATE: 12/03/2001 TIME: 13:50:38 RAW SEQUENCE LISTING PATENT APPLICATION: US/09/991,258

Input Set : A:\W118611.txt
Output Set: N:\CRF3\11212001\I991258.raw

				_	_	_		_	_					_	_	_
2265 2266	Asp	Met 130	His	Gly	Thr	Ile	Lys 135	Glu	Ile	Pro	Leu	His	Gln	Val	Ser	Leu
2267	Пiс		Cor	λκα	Dro	Cve		Tlo	Val	Aen	G1 v		Glv	Фулъ	Dhe	T.011
		1111	Der	лгу	rio	150	1113	110	vai	nsp	155	1115	0+1	- 7 -	1 110	160
2268		3.1 -	7	G	Dwo		c1	N an	Cor	т1 о		Wot	C1.,	Dho	T 170	
2269	ьeu	Ата	Arg	Cys		АІа	GTĀ	ASP	ser		TIIT	Met	GIU	PHE		гур
2270	_	_	-		165	_	_	_		170	_	-1		_	175	_
2271	Asp	Ser	Val		Hls	Ser	Cys	ser		Pro	Tyr	GIU	vaı		Pne	Asn
2272				180				_	185					190		_ •
2273	Pro	Val	-	Arg	Glu	Leu	Tyr		His	Pro	Pro	Glu		GLY	Val	GLu
2274			195					200					205			
2275	Gln	Ala	Cys	Gln	Val	Tyr		His	Asp	Ala	Gln	Asn	Arg	Gly	Ala	Tyr
2276		210					215					220				
2277	Val	Glu	Met	His	Leu	Pro	Gly	Ser	Glu	Val	Asp	Ser	Ser	Leu	Val	$\operatorname{\mathtt{Ser}}$
2278	225					230					235					240
2279	Leu	Ser	Gly	Ser	Ser	Val	Thr	Val	Thr	Pro	Pro	Val	Gly	${ t Thr}$	Ser	Ala
2280					245					250					255	
2281	Leu	Val	Glu	Cys	Glu	Cys	Gly	Gly	Thr	Lys	Ile	Ser	Lys	Thr	Ile	Asn
2282				260		_	-	_	265	_				270		
2283	Lys	Thr	Lys	Gln	Phe	Ser	Gln	Cys	Thr	Lys	Lys	Glu	Gln	Cys	Arq	Ala
2284	-		275					280		-	-		285	•	_	
2285	Tvr	Ara	Leu	Gln	Asn	Asp	Lvs	Trp	Val	Tvr	Asn	Ser	Asp	Lvs	Leu	Pro
2286	-1-	290					295			1		300	•	4		
2287	Lvs		Δla	Glv	Ala	Thr		Lvs	Glv	Lvs	Leu		Va l	Pro	Phe	Leu
2288		1114		0-1		310	204	112	011	-10	315					320
2290		Δla	Δen	G1 v	T.v.c		Thr	Va l	Pro	T.e.ii		Pro	Glu	Pro	Met	
2291	пси	ALU	изр	GLY	325	Cys		, ui	110	330	1114	110	O L u	110	335	
2292	Thr	Dho	Clar	Dha		Cor	Va 1	Cor	Lan		LAII	Uic	Dro	Laze		Dro
2293	T 11T	rne	СТУ	340	Ary	Ser	var	261	345	цуз	пеа	1113	FIO	350	изп	FIO
2294	mb w	Пттъ	T Out		mh ~	7 ~~	Cln	LOU		λαn	C1u	Dro	Uic		Thr	uic
	1111	тĀт	355	1111	1111	Ary	GTII	360	ніа	нар	GIU	PIU	365	тут	1111	птэ
2295	a 1	T		G	a1	D	*1-		7 ma	7 an	Dha	mh -		mb w	C1	Taro
2296	GIU		тте	ser	GIU	PLO		vaı	Arg	ASII	Pile		Val	1111	СТА	тÀЗ
2297	01	370	01	D1	_111-		375	3	-v=2	Dwo	Dwo	380	7 ~~	Dho	- II was	N10
_2298		-Trp-	-GTU	трпе	val		GTÀ	ASII	HIS	PIO		гуѕ	Arg	Pile	ΙΤĎ	
2299		- 1	 1		_	390		5		a1	395	5	***	a 1	**- 1	400
2300	GLn	Glu	Thr	Ата		GIÄ	Asn	Pro	HIS		ьeu	Pro	HIS	GIU		ше
2301					405		_	_		410	1		_		415	_
2302	Thr	His	Tyr	_	His	Arg	Tyr	Pro		Ser	Thr	He	Leu		Leu	Ser
2303				420				_	425			_		430		
2304	Ile	Cys	Ala	Ala	Ile	Ala	Thr		Ser	Val	Ala	Ala		Thr	Trp	Leu
2305			435					440					445			
2306	Phe	Cys	Arg	Ser	Arg	Val	Ala	Cys	Leu	Thr	Pro	Tyr	Arg	Leu	Thr	Pro
2307		450					455					460				
2308	Asn	Ala	Arg	Ile	Pro	Phe	Cys	Leu	Ala	Val	Leu	Cys	Cys	Ala	Arg	Thr
2309	465					470					475					480
2311	Ala	Arg	Ala	Glu	Thr	Thr	\mathtt{Trp}	Glu	Ser	Leu	Asp	His	Leu	Trp	Asn	Asn
2312		-			485					490					495	
2313	Asn	Gln	Gln	Met	Phe	Trp	Ile	Gln	Leu	Leu	Ile	Pro	Leu	Ala	Ala	Leu
2314				500		_			505					510		
2315	Ile	Val	Val	Thr	Arq	Leu	Leu	Arg	Cys	Val	Cys	Cys	Val	Val	Pro	Phe
					~			-	-		_	_				

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/991,258

DATE: 12/03/2001
TIME: 13:50:38

Input Set : A:\Wl18611.txt
Output Set: N:\CRF3\11212001\1991258.raw

2316			515					520					525				
2317	Leu	Val	Met	Ala	Gly	Ala	Ala	Gly	Ala	Gly	Ala	Tyr	Glu	His	Ala	Thr	
2318		530			-		535			_		540					
2319	Thr	Met	Pro	Ser	Gln	Ala	Gly	Ile	Ser	Tyr	Asn	Thr	Ile	Val	Asn	Arg	
2320						550	_			_	555					560	
2321		Gly	Tyr	Ala	Pro	Leu	Pro	Ile	Ser	Ile	Thr	Pro	Thr	Lys	Ile	Lys	
2322		-	•		565					570				_	575	_	
2323	Leu	Ile	Pro	Thr	Val	Asn	Leu	Glu	Tyr	Val	Thr	Cys	His	Tyr	Lys	Thr	
2324				580					585			-		590	-		
2325	Glv	Met	Asp	Ser	Pro	Ala	Ile	Lys	Cys	Cys	Gly	Ser	Gln	Glu	Cys	Thr	
2326	_		595					600	-	•	•		605		-		
2327	Pro	Thr	Tvr	Arq	Pro	Asp	Glu	Gln	Cys	Lys	Val	Phe	Thr	Gly	Val	Tyr	
2328		610	•			-	615		-	-		620		-		_	
2329	Pro	Phe	Met	Trp	Gly	Gly	Ala	Tyr	Cys	Phe	Cys	Asp	Thr	Glu	Asn	Thr	
2330				•	-	630		•	•		635	-				640	
2331		Val	Ser	Lys	Ala	Tyr	Val	Met	Lys	Ser	Asp	Asp	Cys	Leu	Ala	Asp	
2332				•	645	•			-	650	-	_	_		655	_	
2333	His	Ala	Glu	Ala	Tyr	Lys	Ala	His	Thr	Ala	Ser	Val	Gln	Ala	Phe	Leu	
2334				660	-	•			665					670			
2335	Asn	Ile	Thr	Val	Gly	Glu	His	Ser	Ile	Val	Thr	Thr	Val	Tyr	Val	Asn	
2336			675		-			680					685	_			
2337	Gly	Glu	Thr	Pro	Val	Asn	Phe	Asn	Gly	Val	Lys	Leu	Thr	Ala	Gly	Pro	
2338	•	690					695		-		-	700			_		
2339	Leu	Ser	Thr	Ala	Trp	Thr	Pro	Phe	Asp	Arg	Lys	Ile	Val	Gln	Tyr	Ala	
2340	705				_	710			_	_	715					720	
2341	Gly	Glu	Ile	Tyr	Asn	Tyr	Asp	Phe-	Pro	Glu	Tyr	Gly	Ala	Gly	Gln	Pro	
2342					725		_			730					735		
2343	Gly	Ala	Phe	Gly	Asp	Ile	Gln	Ser	Arg	Thr	Val	Ser	Ser	Ser	Asp	Leu	
2344				740					745					750			
2345	Tyr	Ala	Asn	Thr	Asn	Leu	Val	Leu	Gln	Arg	${\tt Pro}$	Lys	Ala	Gly	Ala	Ile	
2346			755					760					765				
2348								${\tt Pro}$	Ser	Gly	Phe		Gln	Trp	<u>Lys</u>	Lys	
 -2-34-9-												780					
2350	Asp	Lys	Ala	Pro	Ser		Lys	Phe	Thr	Ala		Phe	Gly	Cys	Glu		
2351						790					795					800	
2352	Tyr	Thr	Asn	Pro		Arg	Ala	Glu	Asn		Thr	Val	Gly	Ser		Pro	
2353					805					810					815	_	
2354	Leu	Ala	Phe	Asp	Ile	Pro	Asp	Ala		Phe	Thr	Arg	Val		Glu	Thr	
2355				820					825			_		830			
2356	Pro	Thr		Ser	Ala	Ala	Glu		Thr	Leu	Asn	Glu		Val	Tyr	Ser	
2357			835	_	_	_		840	_				845			_	
2358	Ser	_	Phe	Gly	Gly	Ile		Thr	Val	Lys	Tyr		Ala	Ser	Lys	Ser	
2359	_	850					855			_		860				_	
2360		Lys	Cys	Ala	Val		Val	Pro	Ser	Gly		Ala	Thr	Leu	Lys		
2361		_			_	870				_	875			•		880	
2362	Ala	Ala	Val	Glu		Thr	GLu	GIn	GТУ		Ala	Thr	ITe	His		ser	
2363	1		_		885	_		_,	_	890			_	1	895	_	
2364	Thr	Ala	Asn		His	Pro	GLu	Phe		ьeu	GIn	TTE	Cys		ser	Tyr	
2365				900					905					910			

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/991,258

DATE: 12/03/2001 TIME: 13:50:38

Input Set : A:\W118611.txt

Output Set: N:\CRF3\11212001\1991258.raw

	2367	Val	Thr	Cys	Lys	Gly	Asp	Cys	His	Pro	Pro	Lys	Asp	His	Ile	Val	Thr			
	2368			915					920					925						
	2369	His	Pro	Gln	Tyr	His	Ala	Gln	Thr	Phe	Thr	Ala	Ala	Val	Ser	Lys	Thr			
	2370		930					935					940							
	2371	Ala	Trp	Thr	Trp	Leu	Thr	Ser	Leu	Leu	Gly	Gly	Ser	Ala	Val	Ile	Ile			
	2372	945					950					955					960			
	2373	Ile	Ile	Gly	Leu	Val	Leu	Ala	Thr	Ile	Val	Ala	Met	Tyr	Val	Leu	Thr			
	2374					965					970					975				
	2375	Asn	Gln	Lys	His	Asn														
>	2376			98	السوة			20.1	-12-	M Φ0	λ.	ale	11	e_s	ነ ፈው	o m	اً ∕يرم	nstæo	d of	_
					_/			LAM.	35/16	1110		Y1>			Yes		•			
								1 1 lean												
								tab Key												

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VERIFICATION SUMMARY

PATENT APPLICATION: US/09/991,258

DATE: 12/03/2001 TIME: 13:50:39

Input Set : A:\Wl18611.txt

Output Set: N:\CRF3\11212001\1991258.raw

L:18 M:270 C: Current Application Number differs, Replaced Current Application No

L:18 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:2376 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:13